



SAFETY DATA SHEET

**Forensic Specimen Diluent**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** Forensic Specimen Diluent

**GENERAL USE:** The Diluent is designed for use with OraSure UC Micro-Plate Drugs of Abuse Assays. Based on the package insert provided, the sample is to be diluted appropriately to its required concentration prior to being processed. It is intended for forensic use only.

**GENERIC NAME:** Forensic Specimen Diluent

**PART NUMBER:** 62300

**MANUFACTURER**

OraSure Technologies, Inc.  
220 East First Street  
Bethlehem, PA 18015  
Phone: 800-869-3538  
www.orasure.com

**EMERGENCY CONTACT INFORMATION**

**INFOTRAC US:** 1-800-535-5053

**INFOTRAC INTERNATIONAL:** +1-352-323-3500

**CANUTEC:** 613-996-6666

**COMMENTS:** To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of the US OSHA 29 CFR 1910.1200, Regulation EC 1907/ 2006 and Canadian Hazardous Products Act.

**2. HAZARD IDENTIFICATION**

This test kit should be handled only by qualified personnel trained in laboratory procedures and familiar with their potential hazards. Specific warnings are given in the instructions for use. The absence of a specific warning should not be interpreted as an indication of safety.

**NOTE:** Handling, storing or shipping of this product should pose no threat to the individual. If no leak or excessive damage is noted there is no recommended Personal Protective Equipment (PPE) required.

**GHS CLASSIFICATION:**

Health	Environmental	Physical
<b>Acute Toxicity</b> – Category 2 (inhalation/ingestion). <b>Chronic Toxicity</b> – Category 2 (liver damage, kidney damage, jaw/tooth abnormalities, blood disorders and/or cardiovascular effects can result). <b>Sensitization</b> – Category 1 (skin/eyes/respiratory tract)	None	None

**GHS LABEL:**

<b>Symbols:</b> Irritant	
<b>Hazard Statements:</b>	<b>Precautionary Statements:</b>
None	Avoid contact with eyes, skin & clothing (may cause irritation). Wash thoroughly after handling. Avoid breathing dust, fume or vapors. Keep container closed. Use adequate ventilation. May aggravate pre-existing skin disorders, eye problems or jaw/tooth abnormalities. Liver, kidney or respiratory function may be more susceptible to effects of the substance.

**ROUTES OF ENTRY:** Inhalation, ingestion and absorption.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

**COMMENTS:** The following information is furnished for those hazardous constituents that require regulatory control or disclosure at the concentration found in the mixture. Note that the information here is often based on data for the chemical raw material (LD50, exposure limits, etc.). The mixture contains a significantly diluted concentration in an aqueous solution; however, the assessment below has not taken hazard reduction processing into consideration.

Chemical Ingredient	Chemical Information
<b>Potassium Phosphate Monobasic</b>	<b>CAS#</b> 7778-77-0 (100%) <b>Molecular Weight:</b> 136.09 <b>Chemical Formula:</b> KH <sub>2</sub> PO <sub>4</sub> <b>NFPA:</b> Health=1, Flammability=0, Reactivity=0 <b>Synonyms:</b> Phosphoric acid, Monopotassium salt, Potassium dihydrogen phosphate Potassium Phosphate Monobasic is harmful if swallowed or inhaled; may cause irritation to the skin, eyes and respiratory tract. Avoid contact. If swallowed, seek medical advice immediately. The material and its container should be disposed of in a safe way and in accordance with Local, State and Federal Regulations. No known or anticipated adverse health hazards are likely for the small amount of chemical provided within the mixtures. Utilize Good Laboratory Practices.

<b>Sodium Phosphate Dibasic Anhydrous</b>	<b>CAS#</b> 7558-79-4 (100%) <b>Molecular Weight:</b> 141.96 <b>Synonyms:</b> Disodium phosphate, DSP, Disodium hydrogen phosphate Sodium Phosphate Dibasic Anhydrous is harmful if swallowed or inhaled; may cause irritation to the skin, eyes and respiratory tract. Avoid contact. If swallowed, seek medical advice immediately. The material and its container should be disposed of in a safe way and in accordance with Local, State and Federal Regulations. No known or anticipated adverse health hazards are likely for the small amount of chemical provided within the mixtures. Utilize Good Laboratory Practices.	<b>Chemical Formula:</b> Na <sub>2</sub> HPO <sub>4</sub> <b>NFPA:</b> Health=1, Flammability=0, Reactivity=0
<b>Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate</b>	<b>CAS#</b> 6381-62-6 (100%) <b>Chemical Formula:</b> C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>8</sub> 2H <sub>2</sub> O <b>NFPA:</b> Health=0, Flammability=0, Reactivity=0 <b>Synonyms:</b> Sequestrene Na <sub>2</sub> , Disodium ethylenediaminetetraacetatedihydrate, Edetatedisodium salt dihydrate, Edathamil, EDTA disodium salt. Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate may be harmful if swallowed, inhaled or absorbed through skin; may cause irritation to the skin, eyes and respiratory tract. Avoid contact. The material and its container should be disposed of in a safe way and in accordance with Local, State and Federal Regulations. No known or anticipated adverse health hazards are likely for the small amount of chemical provided within the mixtures. Utilize Good Laboratory Practices.	<b>EC-No:</b> 205-358-3 <b>Molecular Weight:</b> 372.24g/mol <b>HMIS:</b> Health=0, Flammability=0, Reactivity=0
<b>Sodium Hydroxide 0.1000N</b> (0.1-1% sodium hydroxide/ 99.9-99% water)	<b>CAS#</b> 1310-73-2 (0.1-1%)/7732-18-5 (97-99%) <b>Synonyms:</b> Soda Lye, Caustic soda Sodium Hydroxide warning cause's respiratory tract, skin and eye irritation. May be harmful if swallowed may irritate upon contact with mucous membranes. Avoid contact; do not ingest. Avoid breathing vapor or mist; keep container closed, use only with adequate ventilation. The material and its container should be disposed of in a safe way and in accordance with Local, State and Federal Regulations. No known or anticipated adverse health hazards are likely for the small amount of chemical provided within the mixtures. Utilize Good Laboratory Practices.	<b>NFPA:</b> Health=1, Flammability=0, Reactivity=0

#### 4. FIRST AID MEASURES

**EYES:** Flush eyes with copious water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers while flushing with water. OBTAIN MEDICAL ATTENTION.

**SKIN:** Remove contaminated clothing. Flush skin with copious water and wash affected area with soap and water. If blood-to-blood contact occurs, or if more severe symptoms develop, consult a physician.

**INGESTION:** If ingested, rinse out mouth thoroughly with water, provided the person is conscious, and OBTAIN MEDICAL ATTENTION. Call a physician or the local poison control center. Treat symptomatically and supportively. If vomiting occurs, keep head lower than hips to prevent aspiration.

**INHALATION:** Remove person from exposure area to fresh air. Generally, this aqueous product is not a significant inhalation hazard in the product volumes and concentrations. Treat symptomatically and supportively

#### 5 FIRE FIGHTING MEASURE

**EXTINGUISHING AGENT:** Use extinguishing media appropriate for the surrounding fire.

**FIRE FIGHTING PROCEDURES:** Conventional firefighting full protective equipment (with NIOSH-approved self-contained breathing apparatus) and procedures appropriate for the surrounding fire should be sufficient.

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL/ LEAK:** Clean the spill area with water and wipe dry. Spills can also be absorbed with an appropriate inert material (e.g. spill pillows, acid absorbent pads, etc.) which is secured in an appropriate, labeled, sealed container. Material used to absorb the spill may require hazardous material waste disposal. Wastes must be handled and discarded in accordance with all Local, State and Federal regulations. Utilize appropriate Personal Protective Equipment (PPE), including gloves and eye/face protection.

**GENERAL PROCEDURES:** Avoid direct contact with skin, eyes, mucous membranes and clothing by wearing appropriate lab Personal Protective Equipment (PPE) including gloves and eye/face protection. In the event of a hazardous material spill, contain the spill if it is safe to do so and immediately move to a safe area as necessary. Isolate the hazard area and ventilate if appropriate. Ensure that appropriate spill cleanup materials and PPE are available and used.

#### 7. HANDLING AND STORAGE

**HANDLING:** For use by qualified personnel. Utilize Good Laboratory Practices and safety guidelines for handling all chemicals. Wear appropriate Personal Protective Equipment (PPE) including gloves and eye/face protection. Keep containers tightly closed; utilize in an adequately ventilated area.

**STORAGE:** Keep container closed and stored in a cool well ventilated area.

**NOTE:** Handling and storing of the packaged kit should not pose any threat to the shipper.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**NOTE:** No airborne exposure limits established, common safety precautions recommended.

**VENTILATION:** Adequate local and/or general ventilation is required.

**EYE PROTECTION:** Wear ANSI approved safety glasses, goggles or face shield with safety glasses or goggles. Contact lenses should not be worn when handling lab hazards.

**PROTECTIVE GLOVES:** Suitable chemical-resistant, impervious gloves are recommended when handling chemicals. The level of interaction with the chemical shall set the level of protection required. Utilize safe chemical handling procedures.

**PROTECTIVE CLOTHING:** Wear a lab coat, clinic jacket, gown, apron and/or smock.

**COMMENTS:** Proper/safe general industrial hygiene measures shall be taken when working with chemicals. Wash hands and exposed areas with soap and warm water. Ensure eyewash stations and safety showers are close to the work station

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Odorless

**COLOR:** Clear, colorless

**pH:** 5.5 - 7

**BOILING POINT:** Lowest known: 99.9°C (211.8°F)

**MELTING POINT:** Not Known

**EVAPORATION RATE:** ~0.36 (water) if (n-Butyl Acetate = 1)

**SOLUBILITY IN WATER:** Liquid chemical components are 100% soluble in water

## 10. STABILITY AND REACTIVITY

**STABLE:** Stable under normal use and storage conditions.

**INCOMPATIBILITY or REACTIVE WITH:** Strong oxidizing agents, some organic compounds, some metals (tin, aluminum, Zinc) and strong acids & bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** May emit Na<sub>2</sub>O, or release Carbon & Nitrogen Oxides under fire conditions

## 11. TOXICOLOGICAL INFORMATION

Chemical	Toxicological Limit Values
Sodium Phosphate, Dibasic, Anhydrous (100%)	LD50 Oral (rat); 17gm/kg Skin (rabbit), standard Draize 500mg/24H = Mild Eye (rabbit), standard Draize 500mg/24H = Mild
Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate (100%)	LD50 Oral (rat); >2,000mg/kg

### ACUTE:

**TOXICITY:** Harmful if swallowed.

**PRIMARY IRRITANT EFFECT:** May irritate eyes, skin or respiratory tract, based on amount and contact time.

**OTHER ACUTE HEALTH AFFECTS:** No other significant health effects known.

**CHRONIC TOXICITY:** None known. No known component of this product, at the concentration provided is identified by OSHA, ACGIH or IARC as a carcinogen.

**COMMENTS:** To the best of our knowledge, the chemical, physical and toxicological properties have been thoroughly investigated for some of the component chemicals and/or mixtures.

## 12. ECOLOGICAL INFORMATION

### Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate (100%):

#### TOXICITY EFFECTS:

**Toxicity to fish:** LC50 – leuciscus idus (Golden orfe) >500mg/l – 96h

**Toxicity to dolphin:** EC50 – Daphnia - >100mg/l – 24h  
(and other aquatic invertebrates)

**Toxicity to algae:** EC50 - Algae – 10 – 100 mg/l – 72h

**Chemical Oxygen:** 590 mg/g

**COMMENTS:** All other components within the product mixture contain no known negative environmental effects

**13. DISPOSAL CONSIDERATION**

**DISPOSAL METHOD:** Disposal of hazardous wastes/material, product, byproducts and the container must be conducted in accordance with all applicable Local, State and Federal Regulations. Waste generation should be avoided whenever possible. Contact the authority having jurisdiction for your area for specific disposal requirements.

**14. TRANSPORTATION INFORMATION**

Must be shipped in accordance with all applicable Local, State and Federal Regulations. Processing, use or contamination of this product may change shipping requirements and options.

**DOT (US):** Not a dangerous good.

**IMDG:** Not a dangerous good.

**IATA:** Not a dangerous good.

**15. REGULATORY INFORMATION**

<b>Product</b>	<b>United States</b>	<b>Canada</b>	<b>European</b>
<b>Potassium Phosphate Monobasic</b>	Not regulated	Not regulated	Not regulated
<b>Sodium Phosphate Dibasic Anhydrous</b>	CERCLA Reportable: 5000 SARA 311/312: Toxicity	CEPA DSL: Water	Not regulated
<b>Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate</b>	Pennsylvania/New Jersey Right to Know Act.	Not regulated	Not regulated
<b>Sodium Hydroxide 0.1000N</b>	Hazard Class: Irritating material. Clean Water Act 311. Pennsylvania/Massachusetts/New Jersey Right to Know Act.	WHIMIS: Class D-2B: Material causing other toxic effects (Toxic). CEPA DSL/CEPA NDSL: CEPA DSL: Water	Not regulated

**COMMENT:** This product has been classified according to the hazard criteria of the Controlled Product Regulations (CPR) and the MSDS contains the information required by the CPR. This MSDS contains the required information in accordance with the WHMIS hazard classification criteria for this product. Additional regulatory requirements may apply for Sodium Phosphate Dibasic Anhydrous in Japan & Australia.

**16. OTHER INFORMATION**

The information contained herein is accurate to the best of our knowledge. OraSure technologies Inc. makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

**SUMMARY OF CHANGES:** 3/7/2011; Information update and reformatted to comply with the Globally Harmonized System.